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ABSTRACT

To determine whether aural enhancements, or actualities, increase either audience recall of, or interest in, radio newscasts, two versions of the same newscast were presented to different groups of university students. One group heard the control report while the other listened to an experimental report supplemented with actualities. A multiple-choice quiz administered to each group following the newscasts indicated a negative correlation between the use of actualities and both listener recall and interest. These findings, contradicting earlier studies that revealed no difference between experimental and control groups, might be influenced by the following: (1) the shortness of the simulated newscast; (2) the use of aural enhancements in consecutive news items, possibly diminishing the technique's effect; (3) the difficulty of the questions based on actualities; and (4) the homogeneity of the listener population. The results indicate that while actualities might help illustrate a news item, a straight delivery is more effective in providing specific information. Radio news, the listeners also suggested, could be made more interesting through a slower, clearer delivery, more significant news, and a greater use of humor and human interest stories. (MM)

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# The Effects of Actualities on the Recall of and Interest in Radio Newscasts

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Among the advantages broadcast news has over newspapers and newsmagazines is allowing audience members to hear and/or see news as it happens or as it happened. To exploit this advantage, broadcast journalists usually attempt to add as much aural and/or visual enhancement to stories as possible through the use of actualities, voicers, pictures, slides, film and videotape.

Much has been written about the effects of visual enhancements on audience recall of and interest in television newscasts, but little has been published concerning the effects of aural enhancements on audience recall of and interest in radio newscasts. The purpose of this study was to measure such effects.

College textbooks about broadcast journalism recommend the use of actualities for a number of reasons.[1] The authors suggest that actualities help take audience members to the scene of events and allow audience members to participate vicariously in those events. Actualities are also said to add a "dramatic" effect to stories and to help "illustrate" a story much like a picture.

While little has been published about the effects of "illustrating" radio news stories with actualities, much has been published about the effects of "illustrating" television news stories with pictures. Generally, researchers have found that the recall of television newscasts is not very good and that pictures and film/videotape have little effect on the recall of or interest in television newscasts; however, perceived significance of a story by audience members and watching television news to acquire information do seem to be factors

that increase recall and interest.[2]

Other television news researchers have found that "emotion-arousing" stories, advantageous placement of stories(first or last story in newscast), repetition and "fast-pacing" increase recall, but precise newscast organization (by topic or subject) has no effect on recall.[3] In research comparing radio and television news, it has been found that audience members recall more from television, although, generally, recall of information from both media is low.[4]

Research concerning the recall of radio newscasts has found that between 20%-45% of newscast items are remembered.[5] Apparently, the higher the level of a person's educational attainment, the more information he or she can recall.

Repetition seems to help the recall of radio newscasts,[6] as does a delivery rate of between 160-200 words per minute.[7] Providing "timeliness" cues, "emphasis" wording and actualities don't seem to affect recall, though.[8]

This study was conducted to update previous research concerning the effects of actualities on the recall of radio newscasts and to measure the effects of actualities on the degree of interest audience members have in radio newscasts. In addition to the questions about recall and interest, one other research question was addressed: "What would make radio newscasts more interesting?"

## Hypotheses

Hypothesis I: The presence of actualities will have no effect on the recall of radio newscasts.

Hypothesis II: The presence of actualities will have no effect on the degree of interest in radio newscasts.

Methods

The first step was the production of two versions of a 3½-minute, five-story radio newscast. One version had no actualities and the newscaster simply read the five stories(Control). The other version had actualities within three of the five stories(Experimental).[9] The exact wording that was used in the actualities was used in the control version. A few words of attribution were added to the control version, though.

The five stories were: (1) A fire at a local Boy's Club; (2) A sex discrimination lawsuit against a local chain of drug stores; (3) A proposal to buy a device to regulate sound output during local, outdoor rock concerts; (4) A decline in the price of milk at local supermarkets; and (5) A robbery at a local clothing store. All of the stories featured actual local organizations and locations, but fictionalized names, events and issues.

Eight, five-option, multiple-choice questions were developed by the authors for each of the five questions. A panel of five broadcast news professionals and journalism educators evaluated the questions and selected the four questions that dealt with the most significant information for each story. These questions were included on the recall test instrument used in this study.[10]

A pre-test of the instrument and the newscast recordings was conducted using 20 advanced broadcast journalism students as subjects. The results of the pre-test led to some rewording of the test items and to some technical improvements in the recordings.

Finally, students in introductory mass communication courses at a major, western

university were assigned randomly to one of two treatment groups. The control group listened to the newscast without actualities and the experimental group listened to the newscast with actualities. All students were told about the experiment prior to the playing of the newscasts and the administering of the 20-question, multiple-choice test.[11] Anonymity was guaranteed.

A total of 282 students(143 control, 139 experimental) listened to the newscasts in a normal, "classroom" environment and immediately afterward completed the test instrument. In addition to the 20 multiple-choice questions, students were asked how interesting they found the newscast and what would make radio newscasts in general more interesting to them.[12]

Findings

Hypothesis I was not confirmed. The presence of actualities in a newscast did have an effect on recall--a negative effect. Overall, the students averaged about 12(11.72) correct answers out of a possible 20. (59%) The control group averaged 12.19 and the experimental group averaged 11.23. (T=2.38, p=.018) For questions based on information covered in the actualities, the students averaged 3.15 correct answers out of a possible six. The control group averaged 3.51 and the experimental group averaged 2.78. (T=4.09, p=.001) Overall, total scores and "actuality" scores were highly correlated. (Pearson r=+.74, p=.001)

When the scores were broken down by story, the control group scored significantly higher than the experimental group on two of the actuality

stories. (See TABLE 1) The scores on the other three stories were not significantly different, but for two of the three, the control group's average score was higher than the experimental group's average score.

Hypothesis II was not confirmed. The presence of actualities in a newscast did have an effect on interest--a negative effect. Overall, the students gave the newscast an average rating of 5.37 out of a possible 10. The control group rated the newscast at 5.65 and the experimental group rated it at 5.09. ($T=2.42$, $p=.016$) About 32% of the the control group students and 20% of the experimental group students gave the newscast a rating of seven or higher. About 12% of the control group and 22% of the experimental group gave the newscast a rating of three or less.

Interest ratings were positively correlated with both total scores (Pearson $r=+.26$, $p=.001$) and "actuality" scores. (Pearson $r= +.16$, $p=.004$)

The students reported that the slower and clearer delivery of news, the airing of more significant news and the use of more humor and human interest stories would help make radio news more interesting. (See TABLE 2) Other improvements included more enthusiastic news announcers, a greater variety of stories, more background information for stories and more editorials and opinion stories.

## Discussion

In this study of the effects of actualities on recall of and interest in

radio newscasts it was found that college students who listened to a simulated, 3½-minute radio newscast that had no actualities scored significantly higher on a multiple-choice test of recall and rated the newscast more interesting than did students who listened to a newscast that had actualities.

These findings contradict most previous research findings. Generally, past studies have found no significant differences between control and experimental groups.

There are at least three possible explanations for the contradictory findings.

(1) This study used a brief, simulated newscast with only five, simple stories. Most of the other studies used longer newscasts. Perhaps recall and interest are affected differently when longer, more complex, "actual" newscasts are used.

(2) The three actuality stories ran consecutively(stories two, three and four) in the newscast. Perhaps this order tended to negate the "attention-getting" and "interest-arousing" aspect of actualities.

(3) The difficulty of the questions that were based on the information contained in the actualities may have affected recall. Three of the six questions were among the most often incorrectly answered on the test. When test scores were compared controlling for the actuality questions, there was no significant difference between the groups.[13] (T=.71, p=.478)

A third area of concern in this study was "what would make radio news more interesting?" Here the findings were less surprising. Students suggested that the slower, clearer, more enthusiastic delivery of more significant, humorous and human interest stories would certainly make radio news more

interesting to them. They also said they would be more interested if radio newspersons provided more background information on issues and events and offered more commentaries and opinion pieces.

At least three factors should be considered before attempting to generalize the findings of this study to other populations.

(1) The subjects were all students at a major, western university. They were all enrolled in introductory mass communication courses. The results might be different with a less homogeneous sample.

(2) The newscast was brief--3½ minutes. Results might be different (as they have been in other studies) with a longer newscast.

(3) The informational content of several of the actualities was relatively specific. Results might be different with less specific informational content.

Despite its limitations, this study does suggest that radio journalists might want to re-examine how they use actualities in newscasts. In most radio news operations, a great deal of time, effort and expense are put into the gathering, editing and airing of actualities. Yet, this research indicates that actualities may actually reduce listener recall of and interest in radio newscasts and other research indicates that, at best, actualities don't seem to have any significant effect on listener recall or interest.

It could be that actualities really are not sure "attention-grabbers" and "interest-arousers," especially in "brief" newscasts. It could be that actualities are good for providing general information and "illustrating" a story, but when it comes to providing specific information, straight, "reader" stories are a better way to convey information to listeners. Future research should explore these possibilities.

Notes

[1] Irving E. Fang, Television News, Radio News (St. Paul: Rada Press, Inc., 1980), pp. 87-109; Daniel E. Garvey and William L. Rivers, Newswriting for the Electronic Media (Belmont: Wadsworth Publishing Company, 1982), pp. 76-79; Mitchell Stephens, Broadcast News (New York: Holt, Rinehart and Winston, 1980), pp. 149-181; John R. Bittner and Denise A. Bittner, Radio Journalism (Englewood Cliffs: Prentice-Hall, Inc., 1977), pp; 51-60, 104-112; Frederick Shook and Dan Lattimore, The Broadcast News Process (Denver: Morton Publishing Company, 1979), pp. 193-199; Phillip O. Keirstead, Journalist's Notebook of Live Radio-TV News (Blue Ridge Summit: Tab Books, 1976), pp. 91-100, 107-113.

[2] William R. Hazard, "On the Impact of Television's Pictured News," Journal of Broadcasting, 7:43-51 (Winter, 1962-63); Mickie Edwardson, Donald Grooms and Peter Pringle, "Visualization and TV News Information Gain," Journal of Broadcasting, 20:373-380 (Summer, 1976); Drew O. McDaniel, "Film's Presumed Advantages in Presenting Television News," Journalism Quarterly, 50:146-149 (Spring, 1973); Walter Gantz, "How Uses and Gratifications Affect Recall of Television News," Journalism Quarterly, 55:664-672,681 (Winter, 1978); W. Russell Neuman, "Patterns of Recall Among Television News Viewers," Public Opinion Quarterly, 40:115-123 (Spring, 1976).

[3] Andy Klein, "How Telecast's Organization Affects Viewer Retention," Journalism Quarterly, 55:356-359,411 (Summer, 1978); Akiba A. Cohen, Rolf T. Wigand and Randall P. Harrison, "The Effects of Emotion-Arousing Events on Children's Learning from TV News," Journalism Quarterly, 53:204-210 (Summer, 1976); Alan Booth, "The Recall of News Items," Public Opinion Quarterly, 34:604-610 (Winter, 1970); David M. Smith, "Effects of Pacing on Recall and Recognition of Information in Television News Programs," paper presented at Association for Education in Journalism and Mass Communication convention, (July, 1982).

[4] John Stauffer, Richard Frost and William Rybolt, "Recall and Learning from Broadcast News: Is Print Better?" Journal of Broadcasting, 25:253-262 (Summer, 1981); Elihu Katz, Hanna Adoni and Prina Parness, "Remembering the News: What the Picture Adds to Recall," Journalism Quarterly, 54:231-239 (Summer, 1977).

[5] John Stauffer, Richard Frost and William Rybolt, "Recall and Comprehension of Radio News in Kenya," Journalism Quarterly, 57:612-617 (Winter, 1980).

[6] Olle Findahl and Birgitta Hoijer, "Effect of Additional Verbal Information on Retention of a Radio News Program," Journalism Quarterly, 52:493-498 (Autumn, 1975).

[7] James R. Smith and William J. McEwen, "Effect of Newscast Delivery Rate on Recall and Judgment of Sources," Journal of Broadcasting, 18:73-78 (Winter, 1974).

[8] James T. Tiedge and Kenneth J. Ksobiech, "Timeliness Cues and Perceived Immediacy in Radio News," Journalism Quarterly, 59:223-229 (Summer, 1982); Timothy P. Meyer and William C. Miller, "Emphasis and Non-Emphasis Radio Newscast Delivery," Journalism Quarterly, 47:144-147 (Spring, 1970); Blaine S. Holliman, "A Descriptive Study of Audience Attitudinal and Informational Responses to Radio Newscasts Using Different Production Techniques," unpublished Master's thesis, Ohio University, 1962. (Quoted in Meyer and Miller)

[9] Actualities were placed within stories 2, 3, and 4 in the newscast in an attempt to negate "primacy/recency" effects. A panel of five professional broadcast journalists and journalism educators rated the quality of the actualities as "excellent."

[10] A Kuder-Richardson reliability estimate of .613 was obtained using the KR-21 formula described in William A. Mehrens and Irvin J. Lehmann, Measurement and Evaluation in Education and Psychology (New York: Holt, Rinehard and Winston, 1978), pp. 87-98 .

[11] Fourteen questions were based on information contained in "reader" copy and six questions were based on information contained in actualities or paraphrased "actualities."

[12] To measure interest, students were asked to rate the newscast on a scale of 1-10 with 10 being "very interesting." The question concerning improvements in radio news was open-ended. Responses were content analyzed into distinct categories by the authors. The percentage of agreement was .98. William A. Scott, "The Reliability of Content Analysis: The Case of Nominal Scale Coding," Public Opinion Quarterly, 19:321-325 (Fall, 1955).

[13] Control group mean=8.66, Experimental group mean=8.46 out of a possible 14. The "actuality" questions most often missed were the cost of a noise muffling device, the predicted "stabilized" price of milk and specific advice to prospective milk buyers.

TABLE 1

Test Score Means for News Stories by Group*

| STORY | TOTAL | CONTROL GROUP | ACTUALITY GROUP | P** |
|---|---|---|---|---|
| Fire | 2.266 | 2.280 | 2.252 | .818 |
| Lawsuit | 2.553 | 2.734 | 2.367 | .006 |
| Rock Noise | 2.135 | 2.231 | 2.036 | .153 |
| Milk Prices | 2.124 | 2.343 | 1.899 | .001 |
| Robbery | 2.628 | 2.580 | 2.676 | .474 |

*Score range= 0-4

**Determined by T-tests

TABLE 2

Suggested Improvements To Make Radio News More Interesting In Percent by Group*

| IMPROVEMENT | TOTAL | CONTROL GROUP | ACTUALITY GROUP |
|---|---|---|---|
| Slower, Clearer Delivery | 17% | 17% | 17% |
| More Significant Stories | 16 | 15 | 17 |
| More Humor/Human Interest | 15 | 19 | 11** |
| More Enthusiastic Announcers | 11 | 10 | 12 |
| Greater Variety of Stories | 9 | 9 | 8 |
| More Background Information | 6 | 10 | 3** |
| More Commentary/Opinion | 6 | 6 | 5 |
| More Actualities | 4 | 3 | 4 |
| Better Production | 3 | 4 | 1 |
| Shorter Stories | 3 | 6 | 1** |
| More "Live" Stories | 3 | 2 | 3 |
| More "Sensationalism" | 2 | 2 | 2 |
| Better Writing | 1 | 2 | 1 |
| More Accuracy | 1 | 1 | 1 |
| More "Good" News | 1 | 1 | 1 |

*Percentages reflect the number of students who suggested each improvement.

** $p < .05$ (Determined by Chi-square)